
Level of Concern

COVID-19

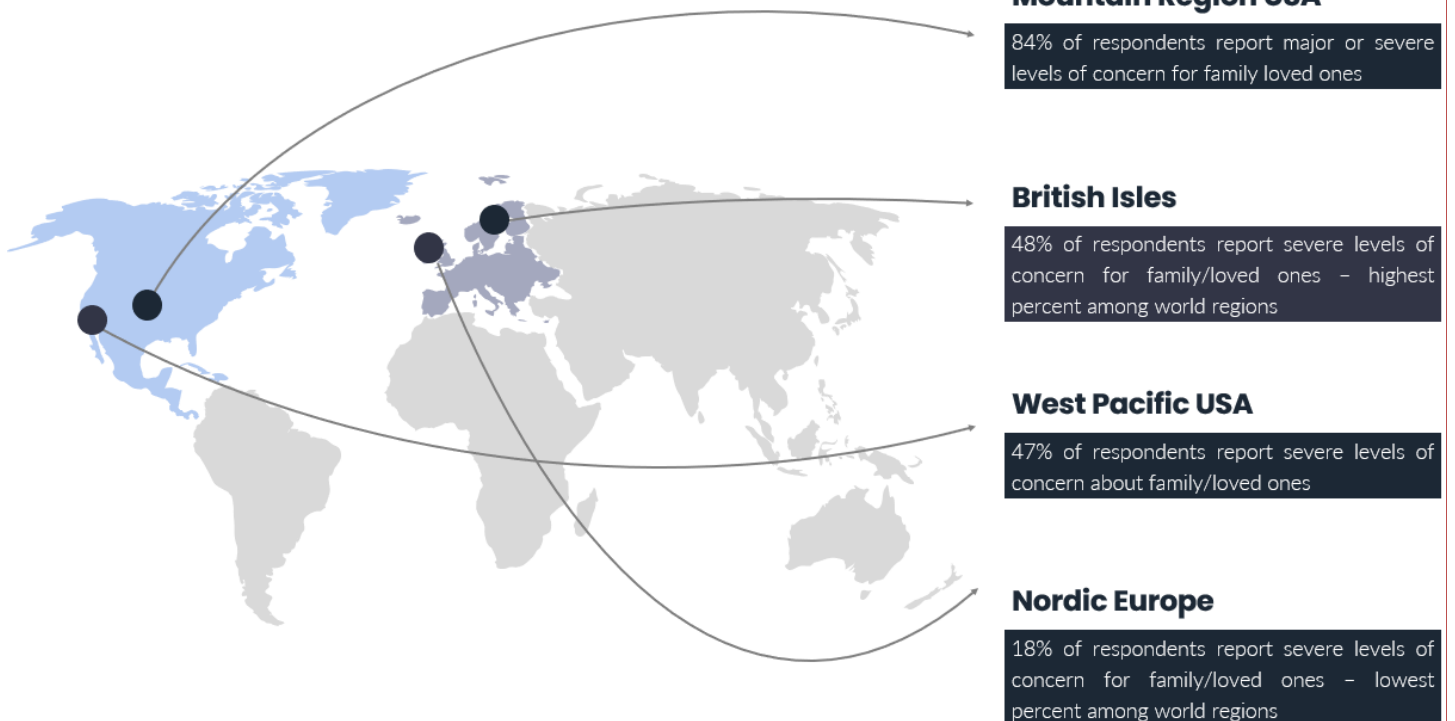
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COVID19 LEVEL OF CONCERN

LEVEL OF CONCERN FOR FAMILY/LOVED ONES



THE LEVEL OF CONCERN HAS A STRONG INVERSE RELATIONSHIP WITH RESPONDENTS' CONFIDENCE IN GOVERNMENTS' RESPONSE TO COVID-19 – THE LOWER THE CONFIDENCE IN GOVERNMENT RESPONSE, THE HIGHER THE LEVEL OF CONCERN.

TABLE OF CONTENT

GLOBAL LEVEL OF CONCERN	4 – 5
CONFIDENCE IN GOVERNMENT	6
MEDIA VIEW	7
QUARANTINE	7
IDENTIFICATION CLUSTERS	8 – 10
CLUSTERS	8 – 10
• INCREDULOUS	
• CREDULOUS	
• SKEPTICS	
• AMENABLE	
NUMBER OF CASES BY WORLD REGION	10
LEVEL OF CONCERN BY WORLD REGION	11
CLUSTERS VS. LEVEL OF CONCERN.....	12
CONCLUDING REMARKS	12 – 13
APPENDIX & SURVEY COVERAGE	13
CONTACT	14

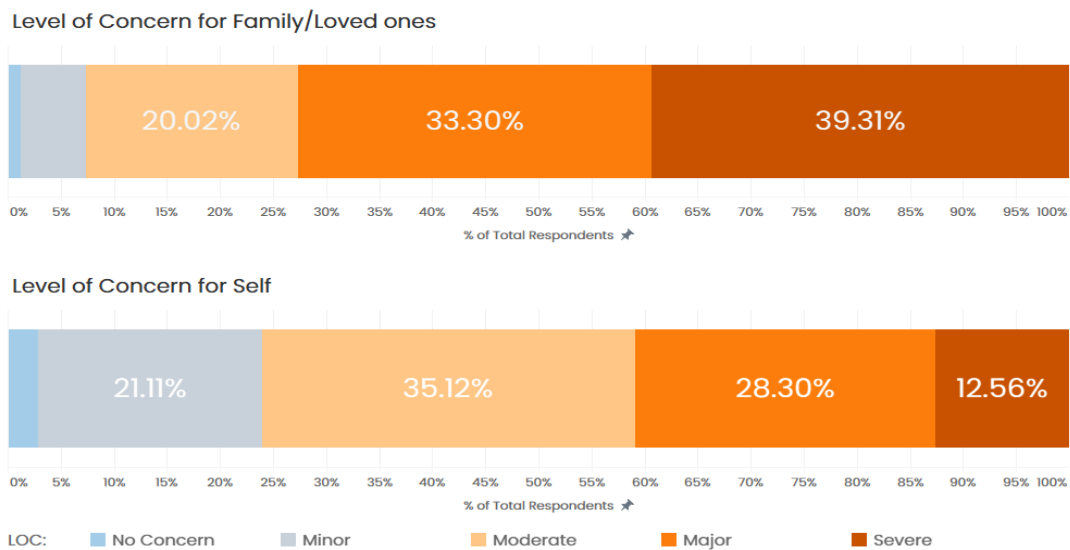


FIGURE 1: COVID19 SENTIMENT SURVEY ANALYSIS

- The Level of Concern for Family/Loved ones

Rate your level of concern that any of your family members/loved ones may become infected with the novel coronavirus (COVID-19)?

- The Level of Concern for Self

Rate your level of concern that you may become infected with the novel coronavirus (COVID-19)?

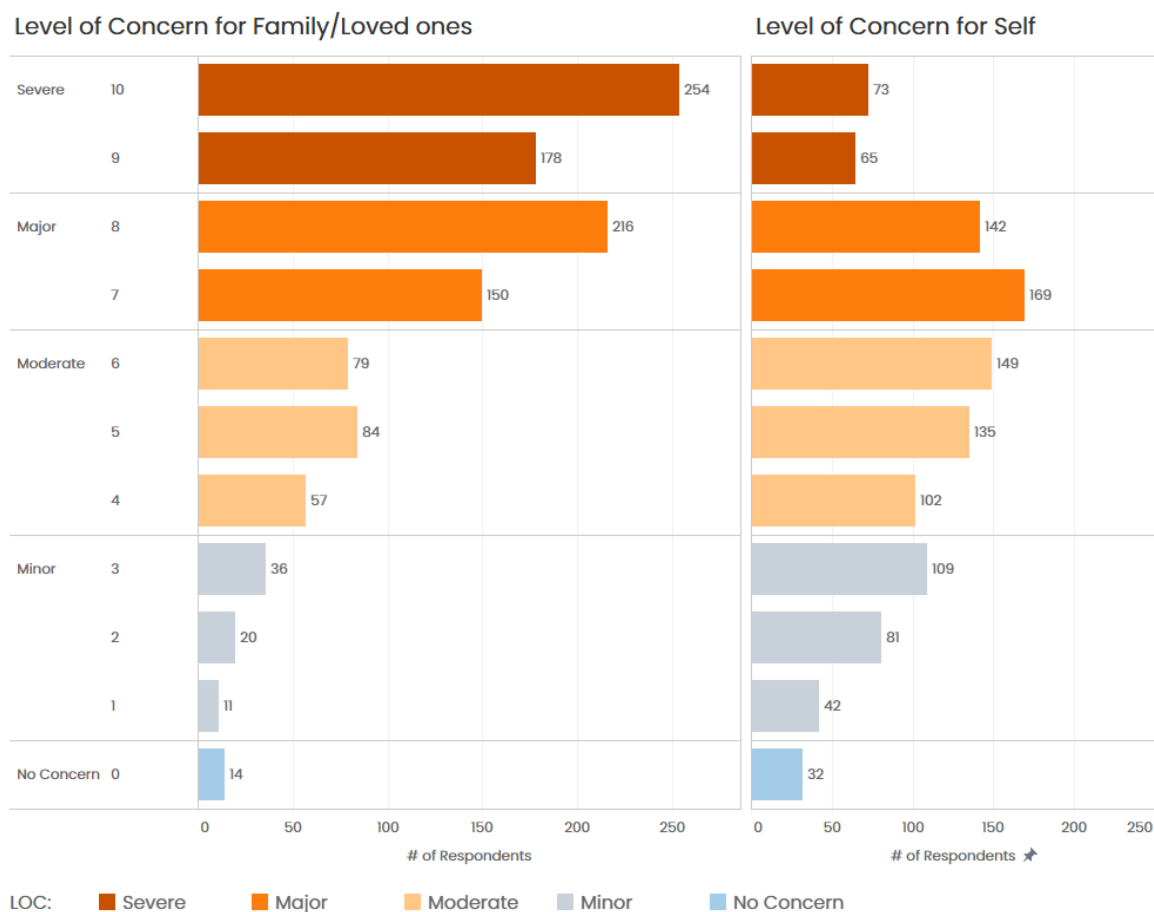
The levels of concern are categorized as follows on a 0-10 point scale rating: 0=no concern, 1-3=minor concern, 4-6=moderate concern, 7-8=major concern, and 9-10=severe concern.

COVID19 – GLOBAL LEVEL OF CONCERN

Coronavirus level of concern is high across the globe, especially when it comes to family/loved ones, COVID-19 sentiment survey shows. Seventy-two percent of respondents reported *major* or *severe* levels of concern when asked about their family members/loved ones and forty-one percent reported this same rating when asked about self. Findings indicate the level of concern has a strong inverse relationship with the respondents' confidence in their governments' response to COVID-19, the lower the confidence in governments' response the higher the level of concern. This relationship is stronger than the relationship between levels of concern and the number of COVID-19 cases in each region. The survey data also indicates that respondents' perception of national media plays a significant role in their level of concern.

COVID-19 LEVEL OF CONCERN- RESPONDENT'S RATE

Figure 2 below shows the respondents' ratings for level of concern for both family/loved ones and self. Of 1099 respondents who answered both questions 254 reported as '10' the level of concern for family/loved ones and 73 respondents rated this high level of concern for self. Five percent of respondents (55) reported a level '10' for both self and family/loved ones. Only 14 and 33 respondents selected '0' for family/loved ones and self, respectively.



This high level of concern explains the strong support the quarantine method has received globally. The survey data shows ninety percent of respondents agree to close schools, religious gathering and bars/restaurants with only 3.8 percent disagreeing with this quarantine policy. The global consensus for quarantine does not produce the same results when it comes to confidence in their government's response nor the media coverage of COVID-19.

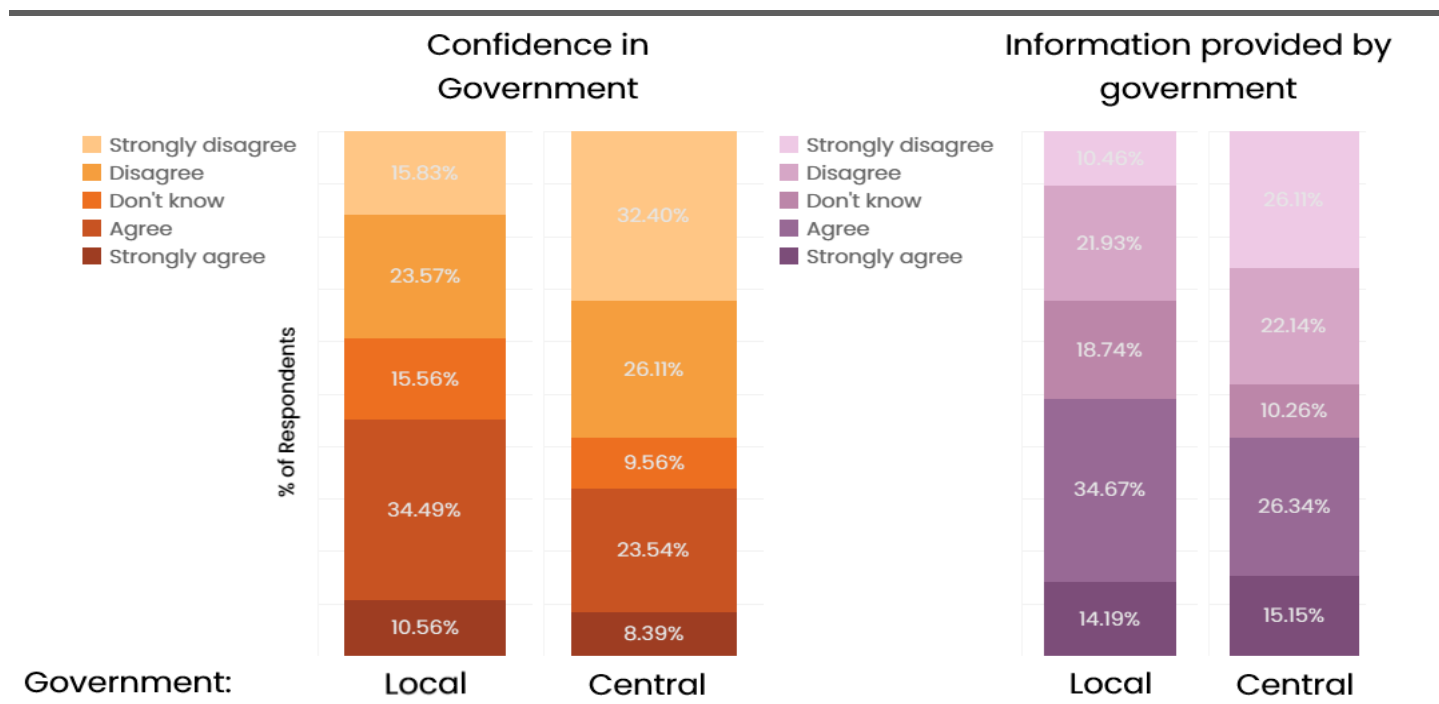


FIGURE 3: COVID19 SENTIMENT SURVEY ANALYSIS

- Confidence in Central/Local Government Response

Rate the following statements about the government efforts to prevent the novel coronavirus from spreading:

- [I am confident in the local government's response]
- [I have confidence in the information provided by the local government]
- [I am confident in the central/federal government's response]
- [I have confidence in the information provided by the central/federal government]

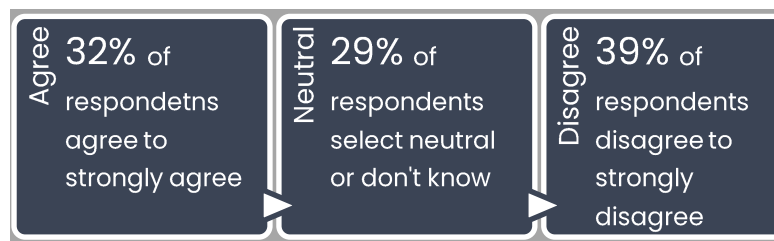
Options ranged from:

Strongly Disagree ...to... Strongly Agree

CONFIDENCE IN GOVERNMENT

Forty-five percent of respondents agree or strongly-agree with the way their local government is responding to coronavirus, and forty-nine percent agree or strongly-agree with the information provided by their local government.

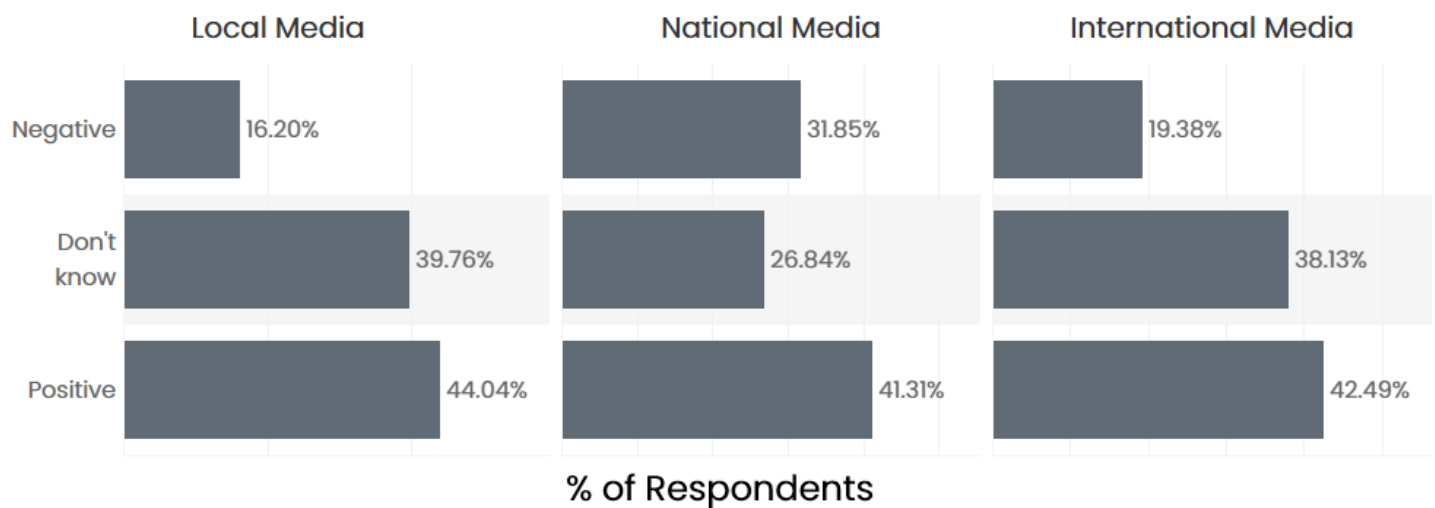
Only thirty-two percent agree or strongly-agree with the way the federal/central government is responding to COVID-19, and forty-one percent agrees with the information provided by central government. When respondents were asked to rate the statement – The local and central government are working well together, they yielded the following results:



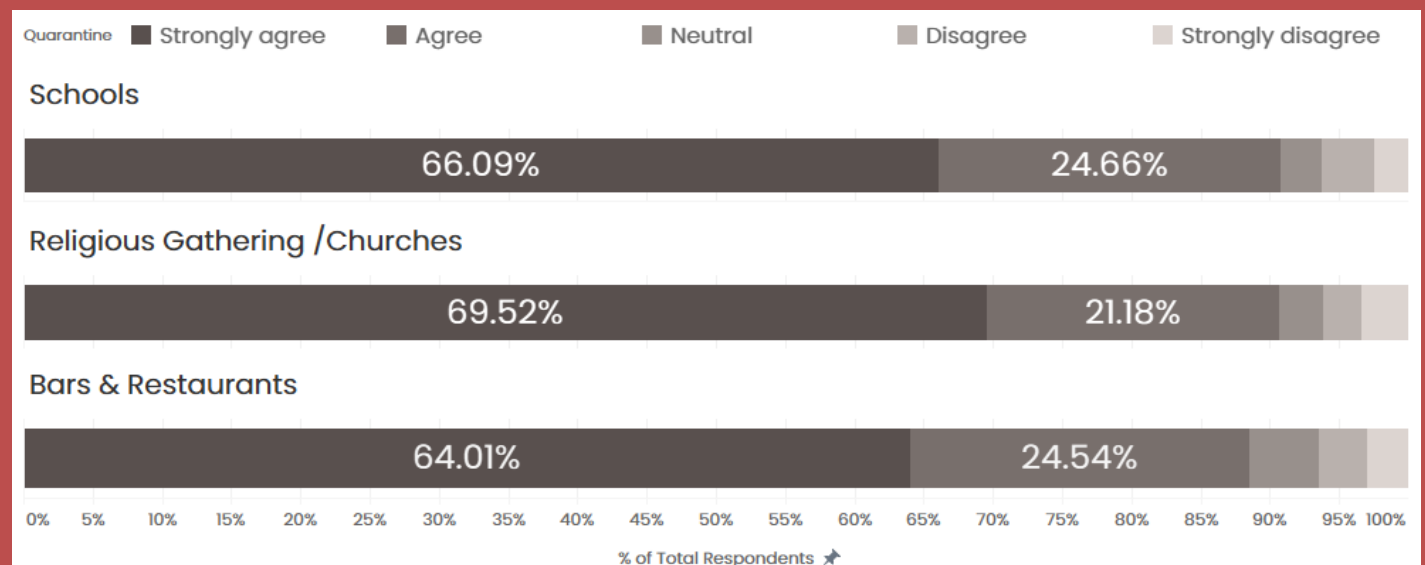
NEWS MEDIA VIEWS

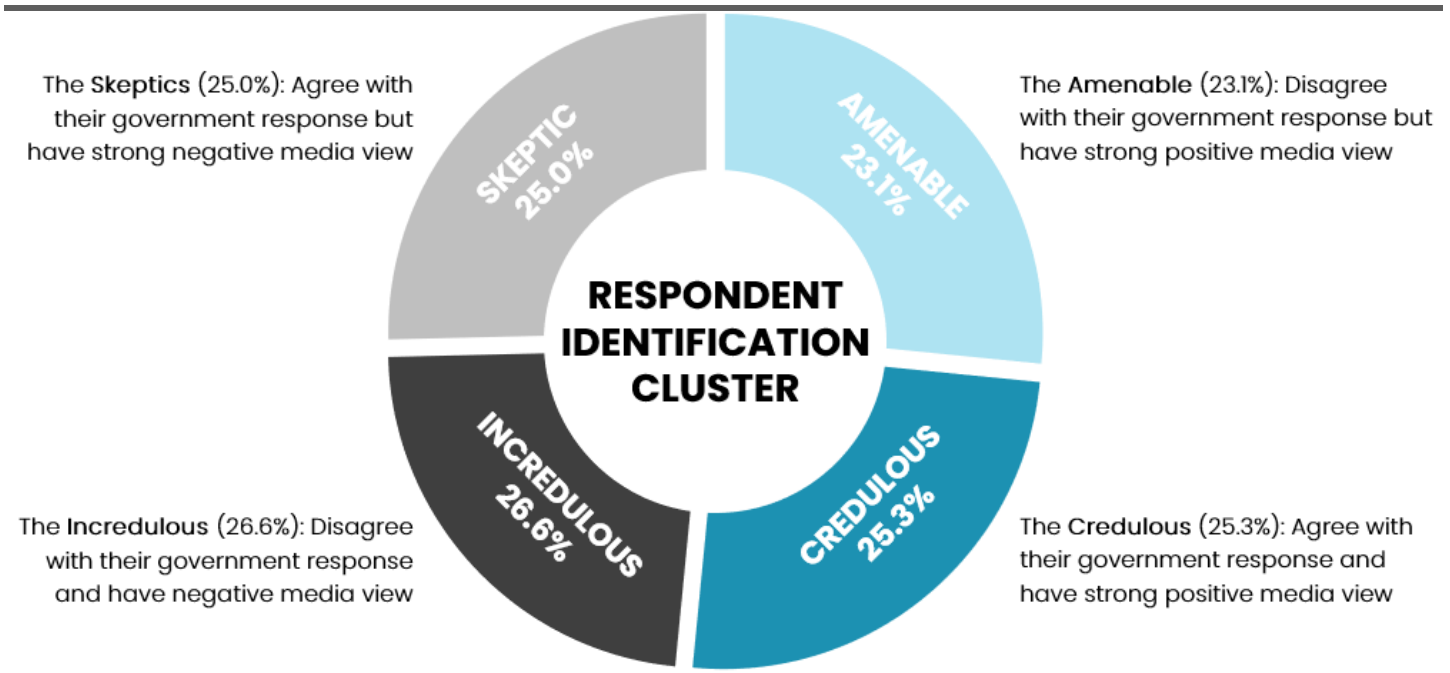
The respondents were asked to state their opinion about the news media coverage of the coronavirus, positive: making things better for the community, and negative= making things worse for the community. Forty-four percent of respondents reported positive views of the local media coverage of coronavirus. The highest percent of respondents reported negative views of national media coverage of the virus.

Respondent Media Views



Majority of respondents agreed, ninety percent, consistent across the world regions, when asked: Rate the following statements about the government actions to prevent the novel coronavirus from spreading: Closing schools, religious gathering, bars and restaurants:



**FIGURE 6: STATISTICAL ANALYSIS**

To classify the respondents in order to evaluate their level of concern, analysis to find patterns among responses and respondent two statistical methods were performed:

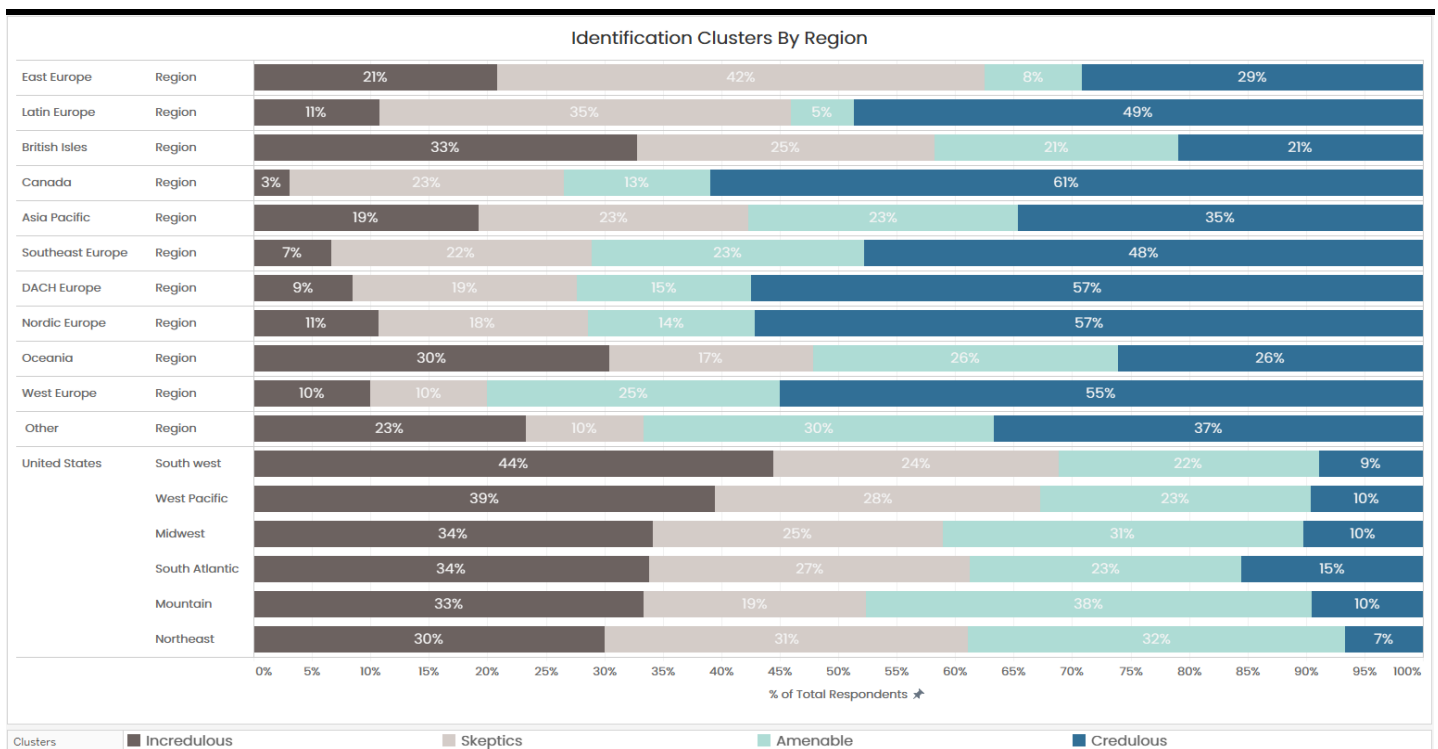
- 1st - Factor analysis (Dimension Reduction, Principle Component/Varimax)
- 2nd - cluster analysis (k-Means) after the survey data went through nonparametric testing to ensure a ninety-five percent confidence interval

The k-means statistical method classified respondents into four groups based on ratings for national media views and confidence in government response. The four groups are classified and identified as follows:

FIGURE 6: STATISTICAL ANALYSIS

- The **IncREDulous** (26.6%): Disagree with their government response and have negative media view
- The **SKEPTICS** (25.0%): Agree with their government response but have strong negative media view
- The **AMENABLE** (23.1%): Disagree with their government response but have strong positive media view
- The **CREDulous** (25.3%): Agree with their government response and have strong positive media view

The distribution was almost equally split among the four groups, the above chart shows the aggregate, global, percent of respondents falling under each cluster. These clusters give us an explanation as to why the levels of concern vary by region.



INCRUDULOUS

The USA regions/respondents are predominantly **incredulous**, have no confidence in government and have negative national media coverage view, especially the southwest region (Arizona, Arkansas, Louisiana, New Mexico, Oklahoma, & Texas), with forty-four percent of respondents from this region falling in the **incredulous** cluster. Following southwest in this cluster, is the west pacific region (Alaska, California, Hawaii, Oregon, & Washington) at thirty-nine percent, and thirty-four percent the Midwest and South Atlantic regions.

CREDULOUS

Canada has the highest percentage with sixty-one percent of respondents reporting both agreement with government response and a positive view of media coverage about COVID-19. In addition to Canada, the DACH Europe region (Austria, Germany, and Switzerland), at fifty-seven percent, and Nordic Europe (Denmark, Finland, Island, Norway, and Sweden), at fifty-seven percent, have confidence in their government response and have positive national media view. The respondents in these regions are largely **credulous**.

The correlation coefficients between the **incredulous** group and the percent of respondents who have rated their level of concern for family/loved ones as severe, '9' or '10', are strong and positive at (.56).

SKEPTIC

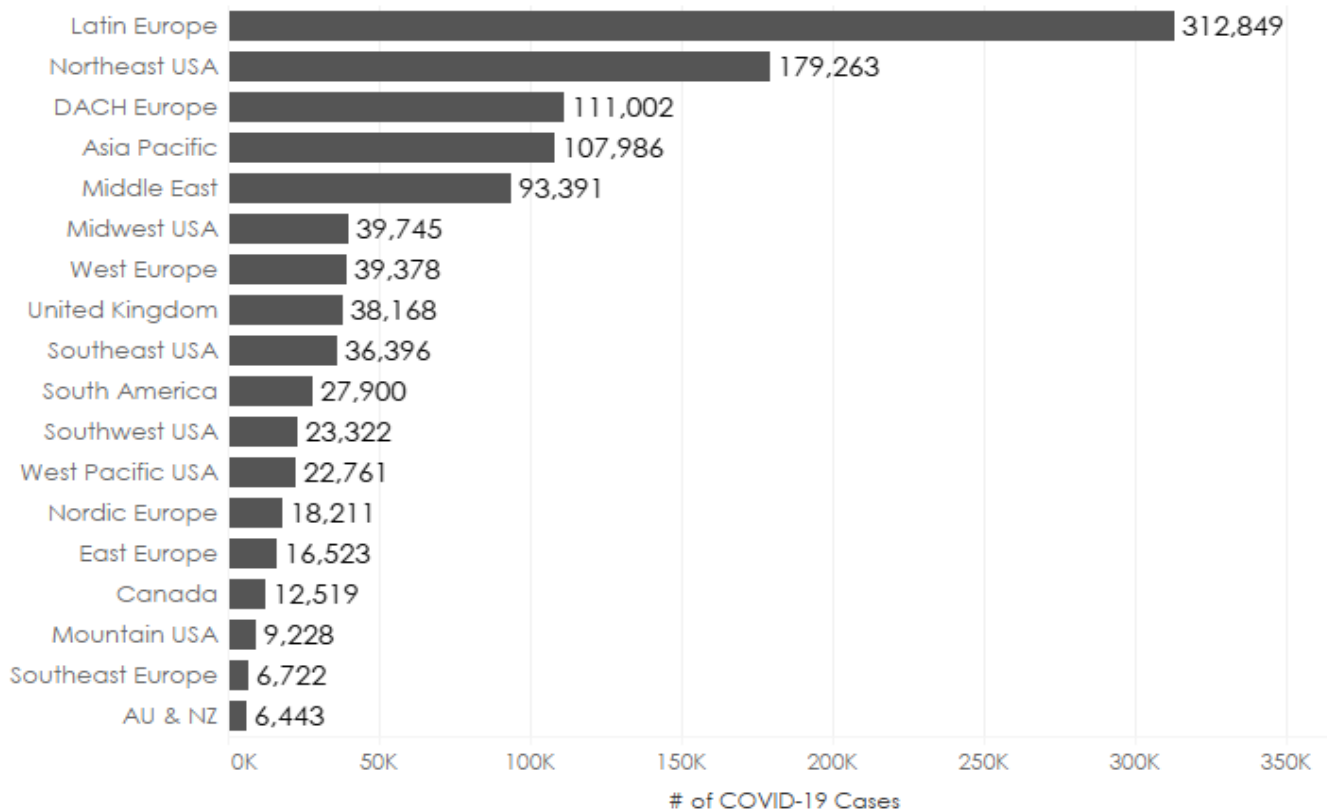
East Europe (Belarus, Bulgaria, Czechia, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Slovakia) has the highest percentage of **skeptics** (38.5%), meaning that they agree with the government's actions but disagree with their national media coverage of coronavirus. The second region with highest percent of **skeptic** respondents (35.1%) is Latin Europe (France, Italy, and Spain) then the Northeast USA region (30%)(Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont).

AMENABLE

The mountain region of USA (Colorado, Nevada, Montana, Idaho, Utah, Wyoming), have the highest number of respondents that have a positive view of the media but have no confidence in governments response, **amenable**. Followed by Northeast USA region at thirty-two percent and Midwest at thirty-one percent.

Figure 8 below shows the total number of COVID-19 cases by region. Latin Europe (France, Italy, Spain) has the highest number of cases by far as of April 4, 2020, followed by Northeast USA.

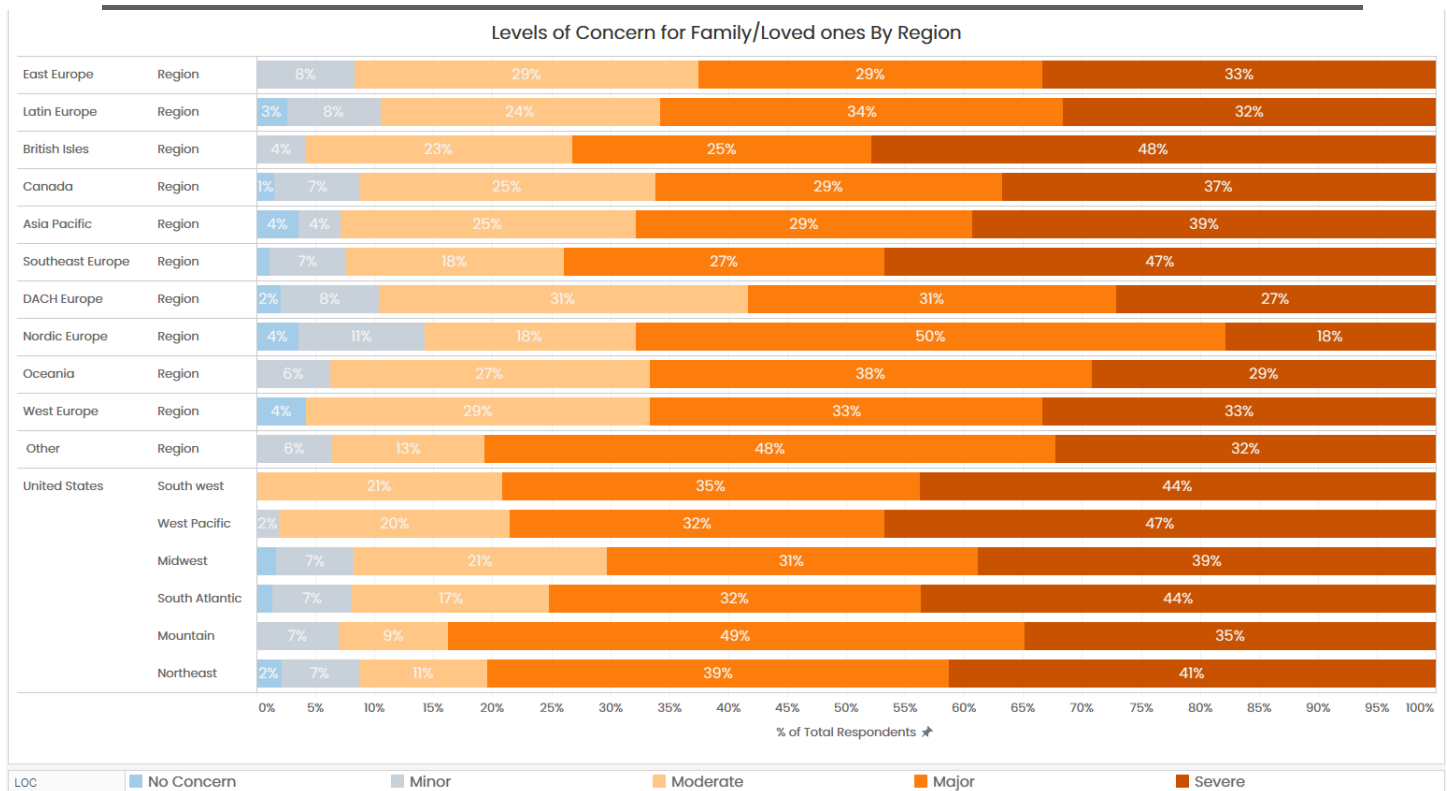
Number of COVID-19 Cases by Region



Data Source: World data retrieved from: European Centre for Disease Prevention and Control <https://www.ecdc.europa.eu/en>

LEVEL OF CONCERN BY WORLD REGION

The combination of primary and secondary data shows that the increase in the number of cases doesn't translate to higher levels of concern for either self or for family/loved ones. Data shows that the highest level of concern come from the people who have a "low" to "no confidence" in government response and lean positive toward national media views. This may likely explain why some regions have a higher level of concern while having a much lower comparative number of COVID-19 cases.



Data also shows a strong negative correlation (-.6) between the severe (9-10) level of concern as and the percentage of credulous respondents, meaning that the individuals that have confidence in their government and have positive national media views are the least likely to report severe levels of concern for self and/or family/loved ones.

For the **skeptic** group, the data shows a lower correlation (.2) demonstrating a minor impact on the severe levels of concern ratings. This group demonstrates that agreeing with government's response decreases the level of concern but ought to follow with positive media view to lead to significant decrease.

CORRELATION FINDINGS

Respondents that have confidence in their government's response and negative media view results in a decrease in respondents' level of concern, meaning that the **skeptics** are more likely to have lower levels of concern than the **incredulous** and **amenable** group.

The **amenable** group has the highest correlation coefficient (.63) between the levels of concern ratings of major/severe (7+) and the percentage of respondents in the cluster. This indicates that the confidence in government plays the higher role in the level of concern than the media view.

CONCERN VS GOVERNMENT CONFIDENCE

The regions which have a higher proportion of amenable and incredulous groups of people, meaning a low to no confidence in governmental response to COVID-19 are the regions with the highest level of concerns for COVID-19. These regions do not necessarily have the highest number of COVID-19 cases, but they are most concerned especially when it comes to family and/or loved ones.

The higher the confidence in government's response followed with positive media view establishes the lower levels of concern. This established correlation doesn't necessary mean causation. It is essential for the governments' higher role in the level of concern than and media around the globe to boost respondent confidence on their actions and reporting.

Level of Concern by Cluster

	Severe	Major	Moderate	Minor	No Concern
Incredulous	42.46%	34.39%	16.14%	6.32%	0.70%
Skeptics	34.33%	29.10%	26.12%	9.33%	1.12%
Amenable	47.58%	32.26%	15.73%	2.42%	2.02%
Credulous	34.69%	36.53%	21.40%	5.90%	1.48%
Grand Total	39.65%	33.12%	19.87%	6.06%	1.31%

CONCLUDING REMARKS

The findings explain why regions with highest number of **credulous** have the lowest levels of concern. The **incredulous** group is likely to have higher levels of concern due to their lack of confidence in government response and media disbelief. For the **skeptic** group agreeing with the government has slightly lowered the level of concern but is still

positively correlated, due to strong negative media view. The positive media view and the strong disagreement with government response, **amenable**, results in the highest levels of concern across the globe, COVID-19 sentiment survey data confirms.

Both media and the governments are dependent on each other for confidence and positive view, the regions where the two are independently synced have lower levels of concern. Governments' can be more transparent, and media can help in boosting people's confidence in government, which is needed during the coronavirus period. While the data shows that increases in confidence in government response can lead to lower levels of concern, it will be nearly impossible for governments to reach lower levels without the media support.

APPENDIX: COVID-19 GLOBAL SENTIMENT SURVEY

COVID-19 Global Sentiment Survey received 1117 unique responses from more than sixty different countries. Each named region had statistically enough number of responses for the analysis. All the charts in this report unless specified otherwise are the survey results. The survey was in the field from March 15, 2020 – April 14, 2020.

COVID-19 Sentiment Survey: Respondents Country by World Region

World Regions	Country	World Regions	Country	USA Regions	State US	USA Regions	State US
Asia Pacific	Bangladesh	Nordic Europe	Denmark	Midwest	Illinois	South Atlantic	Alabama
	China		Finland		Indiana		DC
	Hong Kong		Iceland		Iowa		Florida
	India		Norway		Kansas		Georgia
	Japan		Sweden		Michigan		Kentucky
	Malaysia	Southeast Europe	Albania		Minnesota		Maryland
	Pakistan		Croatia		Missouri		Mississippi
	Philippines		Greece		Nebraska		North Carolina
	Republic of Korea		Serbia		North Dakota		South Carolina
	Singapore		Slovenia		Ohio		Tennessee
	Taiwan	United States	United States		Wisconsin		Virginia
	Thailand	West Europe	Belgium	Mountain	Colorado	South west	West Virginia
	Vietnam		Luxembourg		Idaho		Arizona
			Netherlands		Montana		Arkansas
Oceania	Australia	Other Regions	Argentina		Nevada		New Mexico
	New Zealand		Brazil		Utah	West Pacific	Texas
British Isles	Ireland		Chile	Northeast	Wyoming		Alaska
	United Kingdom		Cyprus		Connecticut		California
Canada	Canada		Israel		Maine		Hawaii
	Austria		Jordan		Massachusetts		Oregon
DACH Europe	Germany		Mexico		New Hampshire		Washington
	Switzerland		Nicaragua		New Jersey		
			Russia		New York		
East Europe	Belarus		South Africa		Pennsylvania		
	Bulgaria		Turkey		Vermont		
	Czechia		United Arab Emirates				
	Estonia						
	Hungary						
	Latvia						
	Lithuania						
	Moldova						
	Poland						
	Romania						
	Slovakia						
Latin Europe	France						
	Italy						
	Spain						

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